

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-7. Cancelled.

8. (New) A device for protecting against arcing events solar array panels and control equipment supplying a main power bus, said control equipment comprising a regulator for controlling a solar array voltage ( $V_s$ ) including a power dump stage for shunting said solar array voltage as a function of a control signal (DoD), said device comprising:

a voltage drop detection circuit for detecting a voltage drop in the solar array voltage provided by said solar array panels, said voltage drop detection circuit generating a voltage drop detection signal ( $V_D$ ), and

an arc-quenching circuit comprising means for generating an output signal ( $V_0$ ) which is applied as said control signal (DoD) to the power dump stage so as to shunt said solar array voltage ( $V_s$ ) when a voltage drop is detected by said voltage drop detection circuit.

9. (New) The device according to claim 8, wherein said arc-quenching circuit further comprises means for shaping said output signal ( $V_0$ ) so as to provide a short initial delay without any action subsequent to a voltage drop detection provided by said voltage drop detection signal ( $V_D$ ), and after said initial delay an arc-quenching pulse which triggers said power dump stage so as to shunt said solar array voltage ( $V_s$ ).

10. (New) The device according to claim 9, wherein said arc-quenching circuit further comprises a first monostable controlling said initial delay and a second monostable controlling a width of said arc-quenching pulse.

11. (New) The device according to claim 9, wherein said initial delay is set to about 19 ms and said arc-quenching pulse has a width set to about 1.7 s.

12. (New) The device according to claim 9, wherein said arc-quenching circuit further comprises means for starting a new quenching cycle including said initial delay followed by said arc-quenching pulse as long as the voltage drop detection circuit detects a voltage drop in said solar array voltage ( $V_s$ ).

13. (New) The device according to claim 8, wherein said voltage drop detection circuit comprises means for comparing said solar array voltage ( $V_s$ ) to a main bus voltage ( $V_B$ ).

14. (New) The device according to claim 8, wherein said arc-quenching circuit further comprises means for combining said control signal (DoD) and said output signal ( $V_o$ ) before being applied to the power dump stage.